Fluid Milk & Yogurt Processing

Companies processing raw milk to produce packaged dairy products and yogurt can now evaluate their plants' energy efficiency and eligibility for ENERGY STAR Certification using the US EPA's ENERGY STAR Fluid Milk Processing Energy Performance Indicator.

Benchmarking Energy Efficiency

The Fluid Milk Processing Energy Performance Indicator (EPI) is a free spread-sheet based benchmarking tool that uses statistical modeling methods to compare a plant's energy use to similar plants in the United States.

To benchmark a plant, enter annual production, packaging, weather, and energy consumption data into the EPI spread-sheet. The EPI calculates the plant's ENERGY STAR Energy Performance Score (1 -100) and provides a comparison to an "average" and "efficient" plant with similar operating characteristics. Download the EPI at: www.energystar.gov/epis.

Fluid Mall. Processing Fluid Example Polymers and Security Polymer

ENERGY STAR Certification

ENERGY STAR Certification is awarded annually to selected commercial buildings and industrial plants that demonstrate best-in-class energy performance. Industrial plants must receive an Energy Performance Score of 75 or higher using the appropriate ENERGY STAR EPI to be eligible for certification.

ENERGY STAR Certification is the most prestigious energy-efficiency award and is one of the most widely recognized brands in the world. For more information on applying for ENERGY STAR certification, visit www.energystar.gov/plants



Why Benchmark and Certify Your Plant

Energy is manageable cost and knowing if your plant uses more energy than similar plants is important for staying competitive. The EPI provides an objective way to measure energy performance and set informed energy goals. Because the EPI is based on actual data from the US dairy sector, it shows you what's achievable and the potential for energy cost savings.

For qualifying plants, ENERGY STAR certification demonstrates that your operations are best-in-class. It lets customers such as Walmart, Target, McDonalds, and others know your plant has lower energy-related GHG emissions. And it demonstrates to consumers that your company is fulfilling its environmental goals.

The EPI is free to use and there are no application fees for applying for ENERGY STAR certification. Because ENERGY STAR certification is awarded annually, plants that do not qualify one year may become eligible in the future by improving their energy performance.

What type of plants can use the EPI?

The Fluid Milk Processing Plant EPI is designed to evaluate facilities that are primarily engaged in producing non-frozen and non-evaporative products from raw milk. The EPI is appropriate for plants with <u>50% or more</u> of their total production from the following dairy product categories:

- Bulk Milk: Fluid milk and cream, bulk sales (including whole milk, 2% reduced fat, 1% low-fat, skim or fat free milk, flavored milk, buttermilk, eggnog, etc.)
- Package Milk: Packaged fluid whole milk, low-fat milk, fat free or skim milk, except U.H.T.
- Cottage Cheese: Cottage cheese (including bakers', pot, and farmers' cheese).
- Yogurt: All yogurt products except frozen.
- Other Dairy Products: Packaged heavy cream, light coffee cream, sour cream, half and half, whipped topping, butterfat base, flavored sour cream dips, flavored milks; eggnog; buttermilk, reconstituted, reduced, or lactose free milk

What data is needed for the EPI?

Production Data

Annual production data for at least one of the following categories:

- Bulk Milk (1000 lbs)
- Package Milk (1000 lbs)
- Cottage Cheese (1000 lbs)
- Other Dairy Products (1000 lbs)
- Juices (% of total production value)
- Dairy Product Substitutes, such as soy and almond milk (% of total production value)

Container Mix Details

The share (%) of the total cost of containers for each container type is used to account for differences in packaging energy intensity. Include purchased containers or any materials used to manufacture containers on site for calculating total container cost. Used to account for difference in energy use by packaging types.

- Paperboard for cartons
- Purchased plastic containers (jugs, etc.)
- · Plastics and resins for blow molding
- Other: Any other container type not explicitly identified above, including metal, glass, etc.

Cooling degree day (CDD) values for the current 12-month period used for benchmarking. CDD values can be obtained from the EPA's Degree Days Calculator at www.energystar.gov/degreedayscalculator.

Energy Use Data

Annual energy use for applicable energy sources:

- Electricity (kWh, MWH)
- Onsite Renewables (kWh, MWH)
- Natural Gas (Therms, MCF, kBtu, MMBTU)
- Distillate and Residual Oil (gallons, 1000 gallons, kBtu, MMBTU)
- Coal, Other (MMBTU, GJ)

